

CLAIMS

What is claimed is:

- 1 1. A method of producing a representation of a streaming media data at a
2 caching proxy server, the method comprising:
3 transmitting a request for streaming media data to be delivered to the
4 caching proxy server;
5 transmitting a request for data associated with the streaming media
6 data, the request including an identifier which represents one of several
7 possible types of data associated with the streaming media data;
8 receiving the streaming media data and storing the streaming media
9 data on a storage device which is capable of being controlled by the caching
10 proxy server; and
11 receiving the data associated with the streaming media data in a body of
12 a packet.
- 1 2. The method of claim 1, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes
3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 3. The method of claim 2, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1 4. The method of claim 2, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

1 5. The method of claim 2, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.

1 6. The method of claim 1, further comprising placing streaming media data
2 in body of an RTP data packet.

1 7. A method for operating a caching proxy server comprising:
2 sending a request for streaming media data to a server, the request
3 including a request for data associated with the streaming media data, the
4 request including an identifier which represents one of several possible types of
5 data associated with the streaming media data;
6 receiving a response from the server indicating support for the requested
7 streaming media data;

8 informing the server to send the supported data associated with the
9 streaming media data;
10 receiving the streaming media data from the server in a body of a packet;
11 receiving a request from the client to send streaming media data; and
12 sending the requested streaming media data to the client.

1 8. The method of claim 7, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes
3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 9. The method of claim 8, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1 10. The method of claim 8, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

1 11. The method of claim 8, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.

1 12. The method of claim 7, wherein the sending the streaming media data to
2 the client further includes appending header fields of a data packet header
3 before sending streaming media data to the client.

1 13. The method of claim 12, wherein, appending comprising stripping of
2 name and ID of the data packet header.

1 14. A method of negotiating for various types of streaming media data by
2 the server comprising:
3 receiving a request for one or more types of streaming media data from a
4 caching proxy server or a client, the request including a request for data
5 associated with the streaming media data, the request including an identifier
6 which represents one of several possible types of data associated with the
7 streaming media data;
8 determining if requested types of streaming media data are supported
9 by the server; and
10 responding to the request with a response to indicate the capability of
11 the server to support the request, wherein the response is in a body of a packet.

1 15. The method of claim 14, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes

3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 16. The method of claim 15, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1

1 17. The method of claim 15, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

1 18. The method of claim 15, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.

1 19. A method of negotiating for various types of streaming media data by
2 the caching proxy server comprising:

3 sending a request for one or more types of related or unrelated
4 streaming media data to a server, the request including a request for data
5 associated with the streaming media data, the request including an identifier
6 which represents one of several possible types of data associated with the
7 streaming media data;

8 receiving a response in a body of a packet to each requested type of
9 streaming media data; and
10 deciding whether to proceed or terminate negotiation process associated
11 with streaming media data.

1 20. The method of claim 19, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes
3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 21. The method of claim 20, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1 22. The method of claim 20, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

1 23. The method of claim 20, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.

1 24. A method of frame thinning by caching proxy server comprising:

2 receiving a message from a client, the message indicating a need to thin
3 streaming media data being sent to the client;
4 evaluating priority of streaming media data; and
5 sending only selected streaming media data in a body of a packet.

1 25. The method of claim 24, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes
3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 26. The method of claim 25, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1 27. The method of claim 25, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

1 28. The method of claim 25, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.

1 29. A method of using transmit time of RTP packet transmissions at a
2 caching proxy server the method comprising:
3 requesting data corresponding to transmit time for streaming media data
4 from a server;
5 receiving the streaming media data corresponding to transmit time
6 information from the server in a body of a packet;
7 storing the received information; and
8 transmitting from the caching proxy server to a client the streaming
9 media data at times specified by the transmit time.

1 30. The method of claim 29, wherein the data associated with the streaming
2 media data comprises a RTP Meta-Information payload format which includes
3 a field header to identify the streaming media data associated with the request,
4 and a field body to include the streaming media data.

1 31. The method of claim 30, wherein the field header is a standard field
2 header including a first bit identifying type of the field header, a field name
3 identifying type of the streaming media data, and a field length.

1 32. The method of claim 30, wherein the field header is a compressed field
2 header including a header type identifier, a field ID, and a field length.

- 1 33. The method of claim 30, wherein the field header is a combination field
2 header which includes a standard field header coupled to a compressed field
3 header.